

**Annual Drinking Water Quality Report for 2023**  
**Pinewood Knolls Water System**  
**Brusk Dr, Hopewell Junction, NY 12533**  
**(Public Water Supply ID# 1302785)**

**INTRODUCTION**

To comply with State regulations, Pinewood Knolls Water will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standard. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact VRI Environmental Services at (845) 677-3839. We want you to be informed about your drinking water.

**WHERE DOES OUR WATER COME FROM?**

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the quantity of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water system serves 150 through 44 service connections. Our water source is groundwater from the Fishkill/Sprout Creek drainage basin drawn from two drilled wells located at the end of Brusk Drive. The water is disinfected with sodium hypochlorite prior to the storage tank. Water from the storage tank is pumped to the distribution system and to a hydro-pneumatic tank. Backup power is provided with an emergency generator. Last year we pumped a total of 2,396,600 gallons, with an average of 6,566 gallons per day.

The New York State Department of Health completed a source water assessment of the water supply in 2003. While the water delivered to the homes is of good quality, the source water assessment has rated our water source as having a potential susceptibility to microbial and nitrate contamination. These ratings are due primarily to the reported proximity of the wells to permitted discharge facilities (facilities that discharge wastewater into the environment and are regulated by the state and/or federal government) and the residential land use and related activities in the assessment area. The full results of this report are available from the Town of East Fishkill or the Dutchess County Department of Behavioral and Community Health. For questions regarding this report, please contact Dutchess County Department of Behavioral and Community Health at (845) 486-3404.

**ARE THERE CONTAMINANTS IN OUR DRINKING WATER?**

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, nitrate, principal organic compounds, primary inorganic compounds, lead and copper, disinfection byproducts, and radiologicals. The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

It should be noted that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800) 426-4791 or the Dutchess County Department of Behavioral and Community Health at (845) 486-3404.

**Table of Detected Contaminants**

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measure-ment	MCLG	Regulatory Limit (MCL, AL or TT)	Likely Source of Contamination
Nitrate	No	Quarterly 2023	4.88  (Range = 4.41 – 5.43)	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nickel	No	5/23/2023	0.001	mg/L	n/a	n/a	Corrosion of plumbing systems; Erosion of natural deposits.
Barium	No	5/23/2023	0.030	mg/L	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Total Trihalomethanes	No	9/20/2023	45.90	ug/L	n/a	80	By-product of drinking water disinfection needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Haloacetic Acid	No	9/20/2023	15.0	ug/L	n/a	60	By-product of drinking water disinfection needed to kill harmful organisms.
Copper *	No	September 2022	209  (Range = 103 – 261)	ug/L	1300	AL = 1300	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Lead **	No	September 2022	3.7  (Range = ND – 4.35)	ug/L	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits.

**Table of Detected Contaminants**

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, AL or TT)	Likely Source of Contamination
Sodium	No	Quarterly 2023	130.75 (Range = 124 – 137)	mg/L	n/a	See Health Effects ***	Naturally occurring; Road Salt; Water softeners; Animal waste.
Chloride	No	Quarterly 2023	222.75 (Range = 201 – 243)	mg/L	n/a	250	Naturally occurring or indicative of road salt contamination.
Iron	No	3/16/2023	11	ug/L	n/a	300	Naturally occurring.
Manganese	No	3/16/2023	1	ug/L	n/a	300	Naturally occurring; Indicative of landfill contamination.
Sulfate	No	2/8/2019	35.1	mg/L	n/a	250	Naturally occurring;
Odor	No	2/8/2019	1.40	T.O.N.	n/a	3	Organic or inorganic pollutants originating from municipal and industrial waste discharges; natural sources.
Color	No	2/8/2019	2.00	Pt-Co	n/a	15	Large quantities of organic chemicals; inadequate treatment, high disinfectant demand and the potential for production of excess amounts of disinfectant byproducts such as trihalomethanes, the presence of metals such as copper, iron and manganese; Natural color may be caused by decaying leaves, plants, and soil organic matter.
Gross Alpha	No	10/21/2019	2.45	pCi/L	0	15	Erosion of natural deposits.

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Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, AL or TT)	Likely Source of Contamination
Beta particle and photon activity from manmade radionuclides	No	10/21/2019	2.85	pCi/L	0	50 ****	Decay of natural deposits and man-made emissions.
Combined Radium 226 & 228	No	10/21/2019	0.814	pCi/L	0	5	Erosion of natural deposits;
Uranium	No	10/21/2019	1.67	ug/L	0	30	Erosion of natural deposits.
Perfluorooctanoic Acid (PFOA) Well 1	No	Quarterly 2023	2.76 (Range = ND – 4.89)	ng/L	n/a	10	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctane Sulfonic Acid (PFOS) Well 1	No	Quarterly 2023	4.02 (Range = ND – 7.72)	ng/L	n/a	10	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctanoic Acid (PFOA) Well 2	No	Quarterly 2023	6.13 (Range = 3.56 – 14.7))	ng/L	n/a	10	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctane Sulfonic Acid (PFOS) Well 2	Yes	Quarterly 2023	10.03 (Range = 4.72 – 26.1)	ng/L	n/a	10	Released into the environment from widespread use in commercial and industrial applications.

**Table of Unregulated Detected Contaminants**

Contaminant	Date of Sample	Level Detected (Max) (Range)	Unit Measurement	Likely Source of Contamination
Perfluoropentanoic Acid (PFPeA)	Well 1	6/23/2023 11/30/2023	1.57 3.35	Released into the environment from widespread use in commercial and industrial applications.
	Well 2	5/4/2023 6/23/2023 9/18/2023 11/30/2023 12/19/2023	4.25 2.27 3.20 4.60 9.00	

Contaminant	Date of Sample	Level Detected (Max) (Range)	Unit Measurement	Likely Source of Contamination
Perfluorobutanesulfonic Acid (PFBS)			ng/L	Released into the environment from widespread use in commercial and industrial applications.
Well 1	3/29/2023 6/23/2023 11/30/2023	2.26 1.88 2.75		
Well 2	3/29/2023 5/4/2023 6/23/2023 9/18/2023 11/30/2023 12/19/2023	2.40 2.52 2.31 2.90 3.51 3.65		
Pefluorohexanoic Acid (PFHxA)			ng/L	Released into the environment from widespread use in commercial and industrial applications.
Well 1	3/29/2023 6/23/2023 11/30/2023	3.61 1.62 2.97		
Well 2	3/29/2023 5/4/2023 6/23/2023 9/18/2023 11/30/2023 12/19/2023	4.60 4.27 2.40 3.00 4.68 10.6		
Perfluoroheptanoic Acid (PFHpA)			ng/L	Released into the environment from widespread use in commercial and industrial applications.
Well 1	3/29/2023 6/23/2023 11/30/2023	1.53 0.563 0.966		
Well 2	3/29/2023 5/4/2023 6/23/2023 9/18/2023 11/30/2023 12/19/2023	1.66 1.61 0.858 1.08 2.18 4.10		
Perfluorohexanesulfonic Acid (PFHxS)			ng/L	Released into the environment from widespread use in commercial and industrial applications.
Well 1	3/29/2023 6/23/2023 11/30/2023	1.09 0.428 0.984		
Well 2	3/29/2023 5/4/2023 9/18/2023 11/30/2023 12/19/2023	1.38 1.13 0.983 1.21 2.04		
Perfluorobutanoic Acid (PFBA)			ng/L	Released into the environment from widespread use in commercial and industrial applications.
Well 1	6/23/2023 11/30/2023	1.10 2.27		
Well 2	5/4/2023 6/23/2023 9/18/2023 11/30/2023 12/19/2023	3.05 1.70 2.05 3.51 5.26		

Contaminant	Date of Sample	Level Detected (Max) (Range)	Unit Measurement	Likely Source of Contamination
Perfluorononanoic Acid (PFNA) Well 2	12/19/2023	1.48	ng/L	Released into the environment from widespread use in commercial and industrial applications.

**The following tests were sampled in 2023 and were non-detected:**

Table 8B – Arsenic, Beryllium, Cadmium, Chromium, Mercury, Antimony, Selenium, Thallium, Fluoride, Cyanide

**Footnotes:**

\* The level presented represents the 90th percentile of the 5 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 5 samples were collected at your water system and the 90th percentile value is the reported value. The action level for copper was not exceeded at any of the sites tested.

\*\* The level presented represents the 90th percentile of the 5 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the lead values detected at your water system. In this case, 5 samples were collected at your water system and the 90th percentile value is the reported value. The action level for lead was not exceeded at any of the sites tested.

\*\*\* Water containing more than 20 mg/L of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 250 mg/L of sodium should not be used for drinking by people on moderately restricted sodium diets.

**Definitions:**

**Non - Detects (ND)** - Laboratory analysis indicates that the constituent is not present.

**Milligrams per liter (mg/L)** – Corresponds to one part of liquid in one million parts of liquid (parts per million – ppm).

**Micrograms per liter (ug/L)** – Corresponds to one part of liquid in one billion parts of liquid (parts per billion – ppb).

**Action Level (AL)** - The concentrations of a contaminant, which, if exceeded, triggers treatment, or other requirements, which a water system must follow.

**Maximum Contaminant Level (MCL)** - The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible.

**Maximum Contaminant Level Goal (MCLG)** - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL)** – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG)** – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

**Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.

**Nanograms per liter (ng/L)** – Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion – ppt).

**WHAT DOES THIS INFORMATION MEAN?**

The table shows that our system had a maximum contaminant level violation. Perfluorooctane Sulfonic Acid (PFOS) was detected in well 2 slightly above the maximum contaminant level in the fourth quarter. We have been directed to explore the issue with new treatment or a new source. The health effects language is as follows:

PFOS caused a range of health effects when studied in animals at high exposure levels. The most consistent findings were effects on the liver and immune system and impaired fetal growth and development. Studies of high-level exposures to PFOS in people provide evidence that some of the health effects seen in animals may also occur in humans. The United States Environmental Protection Agency considers PFOS as having suggestive evidence for causing cancer based on studies of lifetime exposure to high levels of PFOS in animals.

As you can see by the table, our system had no violations, but we have learned through our testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements. Although nitrate was detected below the MCL, it was detected at 4.88 mg/L which is greater than one-half of the MCL. Therefore, we are required to present the following information on nitrate in drinking water:

“Nitrate in drinking water at levels above 10 mg/l is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.”

We are required to present the following information on lead in drinking water.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home’s plumbing. Pinewood Knolls Water is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using the water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800) 426-4791 or at <http://www.epa.gov/safewater/lead>.

### **IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?**

During 2023, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

### **DO I NEED TO TAKE SPECIAL PRECAUTIONS?**

Water containing more than 20 mg/L of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 250 mg/L of sodium should not be used for drinking by people on moderately restricted sodium diets. Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800) 426-4791.

### **WHY SAVE WATER AND HOW TO AVOID WASTING IT?**

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- ◆ Saving water saves energy and some of the costs associated with both of these necessities of life;
- ◆ Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- ◆ Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- ◆ Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- ◆ Turn off the tap when brushing your teeth.
- ◆ Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it up and you can save almost 6,000 gallons per year.
- ◆ Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.

## **CLOSING**

Thank you for allowing us to continue to provide your family with quality drinking water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. We ask that all our customers help us protect our water sources, which are the heart of our community. Please call our office if you have any questions.